

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

While the federal records search indicated that the project site does not appear on any federal database, the search revealed that there are three RCRA generators adjacent to or within 1/8 mile of the project site. A RCRA generator is a classification given to facilities that generate a certain amount of hazardous waste on a monthly basis; however, no improper disposal is implied by this listing. Conditionally exempt small quantity generators and hazardous waste transporters include Lex Merit Cleaners at 880 Lexington Avenue, and Oxford Cleaners at 847 Lexington Avenue. Hunter College, located at 695 Park Avenue, is a small quantity generator of ignitable, corrosive and reactive wastes, arsenic, chromium, lead, mercury, silver, selenium, carbon tetrachloride, chloroform, and spent halogenated and non-halogenated solvents.

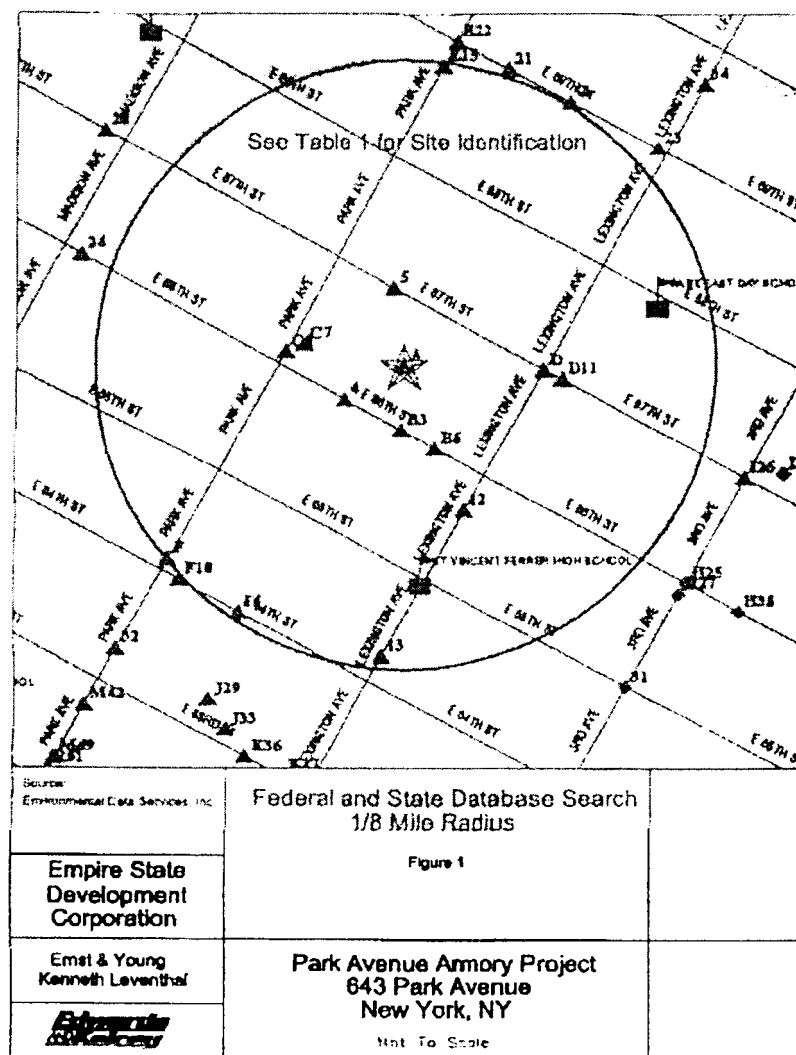


Figure 1



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Table 1

Federal and State Database Search

At or Less than 1/8 mile from and Higher than 643 Park Avenue

Direction from Site	Location, Fig.1	Address	Database File Listing
	A	Park Avenue Armory 643 Park Avenue	4,000-gallon UST, vaulted, with access 2,000-gallon UST, closed and removed 275-gallon AST, reportedly removed LUST - tank overfill (cleanup ceased 2/13/89); tank test failure, 3/27/97
WSW	4	116 East 66th Street apartment building	7,000-gallon UST, vaulted, with access
North	5	Millan House 115 East 67th Street apartment building	5,000-gallon UST, vaulted with access
South	B3	131 East 66th Street apartment building	10,000-gallon UST, vaulted, with access
SSE	B6	139 East 66th Street apartment building	5,000-gallon UST, vaulted with access
WNW	C7	Park and 66th Corp. 630 Park Avenue apartment building	10,000-gallon UST, vaulted with access
West	C8	BHS 640 Park Avenue	LUST - tank overfill (cleanup ceased 2/15/95)
East	D9	NYPD 19th Precinct 153 East 67th Street	3,450 gallon UST, unlead gasoline LUST - tank test failure, 7/18/95
East	D11	Engine Co. 39/Ladder Co. 16, 157 East 67th St	1,080-gallon UST, diesel 2,500-gallon UST, diesel
SSE	12	Lex Merit Cleaners Corp	Conditionally Exempt Small Quantity Generator, Hazardous Waste Transporter
South	13	Oxford Cleaners 847 Lexington Avenue	Conditionally Exempt Small Quantity Generator, Hazardous Waste Transporter
SSW	14	119 East 64th Street	LUST - tank overfill (cleanup ceased 3/27/92)
North	E15	Hunter College 695 Park Avenue	Small Quantity Generator, one violation (6/5/85 Date of Compliance), 15,000-gallon UST (closed), 15,000-gallon UST (closed), 15,000-gallon UST (closed), 275-gallon AST, 275-gallon AST
SW	F16 F17	603 Park Avenue	LUST - tank overfill (cleanup ceased 10/12/92); tank overfill (cleanup ceased 4/21/92)

UST - underground storage tank

AST - above ground storage tank

LUST - leaking underground storage tank

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State Records Review

The following state records were reviewed to determine the presence of hazardous waste at the project site and within the established search radii:

- State Hazardous Waste Site list
- State Landfill/Solid Waste Facilities list
- State Storage Tank lists
- Toxic Release Inventory (TRI)
- Facility Index System (FINDS)
- Air Discharge Facilities
- Toxic Wastewater Discharges
- Spill Information Database

Three tanks are listed at the project site on the NYSDEC Petroleum Bulk Storage (PBS) Underground Storage Tank (UST) and Aboveground Storage Tank (AST) lists. The relative location of these tanks is presented in Figure 2 below.

A 4,000-gallon steel/carbon steel UST, vaulted, with access, is located in the basement of the armory. This tank, installed in July, 1968, is used to store No. 1, 2 or 4 fuel oil.

According to the state database, a 2,000-gallon steel/carbon steel UST, installed in 1960 and used to store unleaded gasoline, was closed and removed in April, 1994. According to the Division of Military and Naval Affairs (DMNA), actually two (2) 500-gallon tanks were located on the exterior of the building along East 67th Street near the intersection with Lexington Avenue. Soil samples taken in the tank excavation area indicate that the constituent levels were well under the regulatory limits established by the New York State Department of Environmental Conservation ("NYSDEC").

A 275-gallon AST on saddles, legs, stilts, or cradle, installed in 1975 to store diesel, is currently out of service.

The NYSDEC Spills Information Database identified the project site on the Leaking Underground Storage Tank (LUST) list. A tank overfill on January 6, 1989 resulted in three inches of oil in the elevator shaft. The file for this event was closed in February 13, 1989, following site cleanup. No additional information regarding this event is available from DMNA. A tank test failure was noted on March 27, 1997. According to DMNA, the vent for the 4,000-gallon tank was found not to be tight.



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The NYSDEC PBS Database identified 45 USTs within ¼ mile of the project site. Most USTs are located within apartment buildings in this predominantly residential neighborhood. As indicated in Table 1, of the eight USTs located within 1/8 mile of the project site, five are tanks in apartment buildings (ranging in capacity from 5,000 to 20,000 gallons). Diesel and unleaded gasoline tanks (including both USTs and ASTs) are located at the NYCPD 19th Precinct at 153 E/ 67th Street, Engine Co. 39/Ladder Co. 16 at 157 East 67th Street, and Hunter College at 695 Park Avenue. Locations of adjacent tanks are indicated in Figure 2.

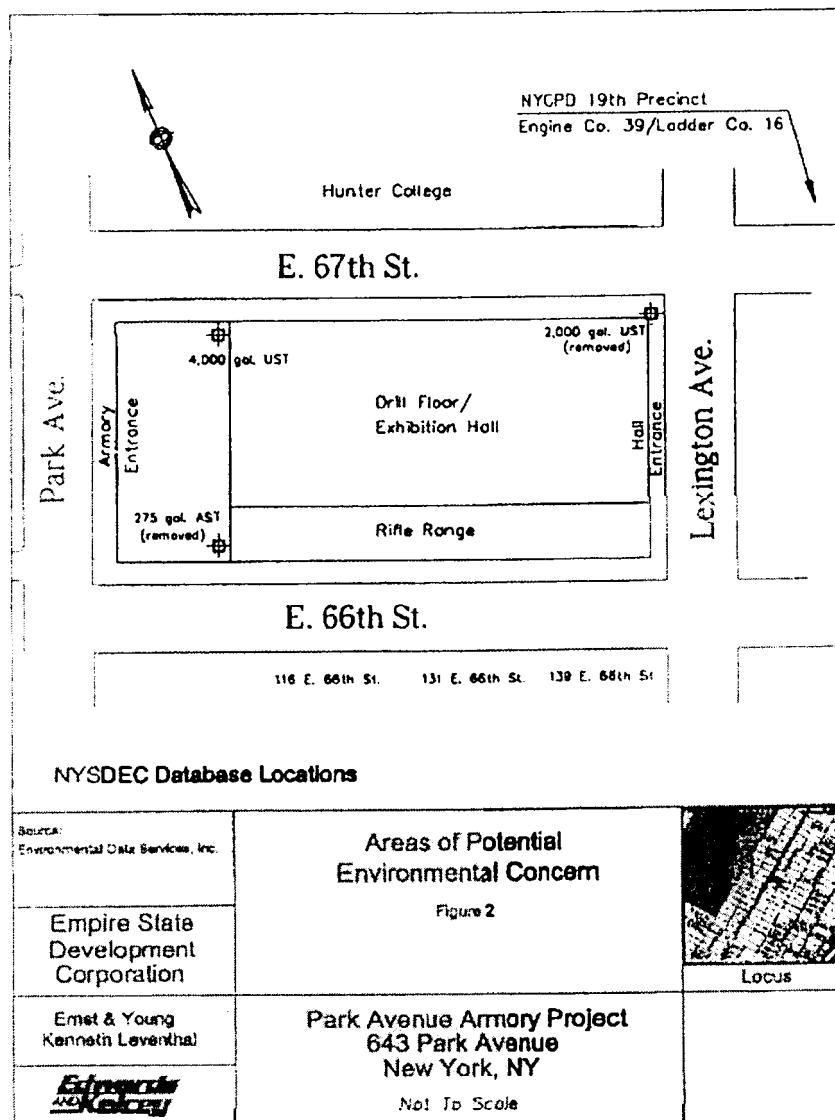


Figure 2

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The NYSDEC Spills Information Database lists 46 Leaking Underground Storage Tank (LUST) Incident Reports within a ½ mile of the project site. Most LUSTs were associated with tank tightness testing failures and overfills from oil deliveries. The files have been closed on most of these events. As indicated in Table 1, five LUST sites are located at or within 1/8 mile of the Park Avenue armory (14 are located between 1/8 and ¼ mile of the site and 27 are located between ¼ and ½ mile of the site).

Local Records Review

A record search from the New York City Fire Department (NYCFD) indicates that no record of underground storage tanks at this location.

Existing Conditions

The project site is located in a densely developed urban area dominated by Hunter College to the north and multi-story apartment buildings with ancillary commercial services, medical offices and public facilities including the NYPD's 19th Precinct and Engine Co. 39/Ladder Co. 16 to the east, south and west.

The Armory is located on the block bounded by Park Avenue, Lexington Avenue, East 66th Street and East 67th Streets, with the main entrance to the five-story Headhouse at 643 Park Avenue. There is a secondary entrance to the single-level Drill Hall on Lexington Avenue. The following military purposes and ancillary functions historically have been housed and/or continue to operate:

- Social organization or clubhouse for voluntary members of the Seventh Regiment. Reception areas on the first floor provide meeting rooms. Additional clubrooms and lounges are located throughout the building.
- The fourth floor mess, now leased and operated as a restaurant. The restaurant is closed during summer months.
- Offices and meeting spaces for various military companies. These second floor offices are now operated on a full time basis by the National Guard. Recruitment offices are located on the first floor.
- A homeless shelter, operated by the Lenox Hill Neighborhood House, a city subcontractor, on the third and fifth floors. The fifth floor was previously operated as a gymnasium.
- Rifle firing range, located in the basement. This facility, used exclusively by the Seventh Regiment Rifle Club as a leasee, is no longer operational.
- The 31,000-square foot drill floor, used by the National Guard one weekend each month. Between Labor Day and June, this area is leased as exhibition space for various shows including the art, rare book and antiques shows and other events.

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A site inspection was conducted July 22, 1999 with the Armory superintendent. Maintenance of the third and fifth floors is by the Lenox Hill Neighborhood House and not state personnel. A representative portion of the rooms was inspected. Areas not investigated included the rifle firing range and the adjacent kitchen in the basement and the restaurant and kitchen on the fourth floor. The following information does not constitute a full Phase I environmental site assessment (ASTM Standards on Environmental Site Assessments for Commercial Real Estate, Standard E 1527-94 and E 1528-93).

Major renovations were conducted in the early part of the century to install electricity and to rewire the gas lighting lines and electrify chandeliers. The building is heated via a dual heating system with natural gas supplemented by fuel oil when ambient temperatures reach 13 degrees Fahrenheit or below. The original system was coal-fired. Low pressure steam heat is delivered to radiators via a two pipe network. A 4,000-gallon vaulted fuel oil tank (UST) in the basement is used to power the backup system. A vault provides secondary containment around this UST. No floor drains were observed in the vaulted space. Steam pipes to the exhibition floor are located in a lighted pipe tunnel along the north side of the building. Wall-mounted natural gas space heaters are located throughout the drill floor / exhibition area.

Although there is no central air conditioning, several of the offices and function rooms have individual window air conditioning units. The fourth floor restaurant is air conditioned. Due to Landmark status, fire sprinklers have only been installed in the basement. There are no backflow prevention devices on the fire sprinkler system. All domestic water service to the building is pumped from the basement via two pumps to a tank on the roof. A 3,000-pound capacity electric elevator services all floors. A sidewalk elevator on East 67th Street is no longer operational. An emergency generator previously located in the basement kitchen, was removed one year ago.

Because of the Landmark status of the building, only limited fluorescent lighting with potential PCB-containing ballasts (pre-1978) have been installed. Emergency lighting is provided in the Homeless Shelter on the third and fifth floors. It is presumed that these units are battery operated.

Lead dust testing was conducted in the rifle range and the adjacent kitchen entrance in 1997. Samples exceeded EPA and HUD criteria for lead-in-dust for floors. DMNA has closed both the kitchen and rifle range to public access.

Asbestos has historically been used as roofing material, as an insulation material on steam piping, as floor tiling, and as fire proofing. According to information obtained from the DMNA, asbestos abatement has been conducted in the boiler room, kitchen, and pipe tunnel along the East 66th Street side. All asbestos has not been removed from the basement area. Definitive testing has not been accomplished for the entire basement.

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Areas of Concern

While not specifically indicating a contamination problem, based on what is known about the site, the following observations were made:

Lead contamination in the rifle firing range has been documented. The range and adjacent basement kitchen have been closed to prevent exposure to this hazardous material.

No building-wide asbestos study or abatement plan has been conducted. Although asbestos abatement projects have been conducted in the basement and within the pipe tunnel, it is likely that asbestos-containing pipe insulation may be found on upper levels of the building and may continue to be found in the basement. Suspect asbestos-containing building material (ACBM) may be found in floor tiles and ceiling panels in the locker areas on the fourth floor, within second floor additions constructed out over the drill floor area, and above the vaulted underground storage tank in the basement.

Due to the age of the building, lead-based paints may be assumed to be located throughout. Leaded glass panes may be integral portions of stained glass decorative art.

Vehicles are routinely driven throughout the drill floor/exhibition hall. Although no vehicle maintenance is conducted at the present time, historical vehicle maintenance activities on or adjacent to the drill floor could have had the potential to adversely affect subsurface soils if the flooring were not competent. To the best of DMNA's knowledge, vehicle maintenance has never been conducted on the drill hall floor and they are not aware of any hazardous materials spills in this area. There are no floor drains on the drill floor.

Two 500-gallon gasoline USTs (mistakenly listed by NYSDEC as one 2,000-gallon tank), located in the yard at the corner of East 67th Street and Lexington Avenue, were removed in 1994. A 275-gallon AST located in the basement kitchen is scheduled for removal in August, 1999. Both areas should be evaluated to determine if past use has adversely affected site conditions. The 4,000-gallon UST failed a tank tightness test in March, 1997. Although DMNA documentation indicates that the vent pipe was found to not be tight and that there were recommendations that the vent be replaced and retested, there is no conclusive evidence in the files that such work was conducted.

A floor drain observed in the paint storage area in the basement has been blocked with duct tape. It is not clear where this line discharges.

Routine pesticide application is conducted along the exterior of the building.



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APPENDIX 5B

Building Systems Assessment

The following section contains descriptions of the building's HVAC, electrical, plumbing, and fire protection systems.

I. Mechanical and HVAC Systems

HEATING SYSTEM DESCRIPTION

Two-pipe low pressure steam consisting of two (2) cast iron sectional boilers fired by dual fuel combination burners for #2 grade fuel oil and natural gas. The gas service which is the primary fuel is interruptible and therefore the burners are fired with #2 fuel oil whenever the outdoor air temperature gets below a temperature determined by the utility company. (Usually 20-25 degrees F.)

Steam distribution from the boilers is through an 8" low pressure steam main in the boiler room that splits into two (2) 6" and one (1) 1 1/2" sub mains to the building radiation. Low pressure steam condensate return from the radiation is taken back to a duplex vacuum pump set in a pit at the basement level. The condensate is collected in the storage receiver of the duplex vacuum pump set where it is then pumped over to the receiver of the boiler feed pumps and receiver set which is located in a room adjacent to the boiler room in the basement. The boiler feed pump set contains two (2) pumps one for each boiler that returns the condensate back to its respective boiler on a call from the boiler low water level pump control.

A four (4,000) thousand gallon fuel oil storage tank is located in a storage room adjacent to the boiler room.

The low pressure steam mains and condensate return lines are located at the ceiling of the basement where they are exposed and within pipe tunnels in portions of the building where there is no basement beneath the First Floor. Branch pipe risers extend vertically from the basement up to the radiation located on the upper floors of the building.

Radiation in the building consists of cast-iron sectional wall mounted type, floor mounted cast-iron column sectional, floor mounted vertical pipe mounted into cast iron headers, and horizontal propeller unit heaters which are located mainly in the drill hall. There is a door blower-heater for the garage door of the Drill Hall.

The boilers, vacuum pump set and boiler feed pump set appear to be in fair to good condition. Maintenance personnel stated that the low pressure steam supply mains and condensate return piping have many leaks while the steam traps on the radiation and at steam main drips are in good condition.

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Because it was the summer season when the building was surveyed by ICMA the heating system was not active and therefore none of the statements made about the piping system could be confirmed.

HEATING SYSTEM EQUIPMENT

Boilers – Weil – Mclain cast iron sectional. Model H 1994 S.F.

16920 Square Feet Steam

4542 8 MBH Water

Vacuum Pump - No nameplate data available. Building drawings indicate that the design for this vacuum pump was a capacity of 100,000 EDR at 20 psig with 7 1/2 HP motors.

Boiler Feed Pump Set – No nameplate data available. Building drawings indicate boiler feed pump capacity to be 28 GPM at 20 psig, 1 HP motor. Fuel oil pump was designed for 2.9 GPM at 100 psig, 1/3 HP.

AIR CONDITIONING

There is no central air conditioning system within the building. The minimal air conditioning that is installed consists of window air conditioning units located throughout the building in various offices and five (5) split system units serving the Fourth Floor restaurant dining area, consisting of evaporator blowers indoors and condensing units located on the roof. The split systems are manufactured by Sanyo, Model SAP483C condensing unit with Model SAP483T indoor unit (evaporator section). Cooling capacity for each of these units is 46,500 BTU. Electrical characteristics 208v / 3 / 60, 24.6 amps total.

There is an abandoned condensing unit located in the Drill Hall that had served the Building Superintendent's office. The unit is in need of repair.

VENTILATION

The building has minimal mechanical ventilation. Windows appear to be the main source of ventilation within the building. The public toilets contain grilles that connect to gravity exhaust shafts that terminate at the roof. According to building drawings, modifications were made to the men's and women's toilets and janitors closet that added an exhaust fan with a capacity of 670 cfm that discharged into an existing gravity vent shaft.

The restaurant (located on the Fourth Floor) has three exhaust hoods one of which is for the dishwasher exhaust that connect to a common duct. The duct runs out the wall of the kitchen to a centrifugal exhaust blower located on the roof adjacent to the kitchen. This appears to be changed from building

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drawings done in 1976 that indicated an exhaust system from the kitchen and dining room. The exhaust air was ducted up to a storage room above where an existing exhaust fan capacity was increased by changing the fan speed from 283 rpm to 450 rpm and the motor was increased from 3 HP to 5 HP.

The building drawings also indicate the addition of twelve (12) wall mounted propeller exhaust fans for the rooms that were labeled as locker rooms on the Fourth Floor. Capacity of these fans are 594 cfm at 1550 rpm with a 1/50 hp motor.

The Drill Hall has two (2) gravity vents located on the peak roof of the Drill Hall as well as two (2) propeller exhaust fans located at the high point of each short end wall.

The Drill Hall has eight (8) propeller type anti-stratification fans mounted below the roof trusses.

CONTROLS

There is no central control system for the building other than ten (10) zone sensors (two per floor) that monitor the temperature of each floor. These sensors control the burner operation of the boilers. When a majority of the sensors read temperatures above their settings the burners are shut down. The control system is monitored by Optimum Applied Systems Inc., 145 Palisade Avenue, Dobbs Ferry, NY which can remotely reset the temperature settings. The local panel provides settings and temperature readings for each zone.

The building heating drawings dated 1966 indicated two (2) zone control valves for the heating system. The thermostats for these valves were to be located in the Adjutant's office and the switchboard room. According to the building maintenance personnel the control described above is the only functioning control.

The five (5) split system air conditioning units in the restaurant each have an electronic wall mounted thermostat.



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2. Electrical Systems

MAIN ELECTRICAL SERVICE

Electric power enters the building at 120/208 volts, 3 phase, 4 wire from Consolidated Edison's facilities on Park Avenue.

There are two metered services.

The main service enters switchboard section containing a 2000 amp main circuit breaker and current transformers for Con Ed's metering. The meter for this service is located on the wall to the right of this switchboard section.

A second metered service is tapped ahead of the main current transformers and supplies "Show Lighting" in the Drill Hall through a separate 400 amp CT cabinet and two 200 amp disconnect switches.

ELECTRICAL DISTRIBUTION

The 2000 amp main circuit breaker supplies a 120/208 volts, 3 phase, 4 wire, 2000 amp main switchboard through a 2000 amp bus duct run low along the wall.

The main switchboard was manufactured by the Pelham Electric Manufacturing Co. but no longer has a nameplate identifying the electrical characteristics.

The switchboard contains 28 individually mounted circuit breakers supplying various panelboards located throughout the building.

One of these has been replaced with an enclosed circuit breaker mounted on the front of the switchboard.

One of the metal panels on the rear of the switchboard had been removed exposing the live bus bars to view, and accidental contact.

Two permanently installed "temporary" feeders exit the switchboard through this opening where they had been tapped to bypass defective or inadequate circuit breakers and go on to supply the Drill Hall through two disconnects on the other side of the wall. These feeders are not run in conduit but are strung through porcelain insulators between the switchboard and the disconnects and there does not appear to be any equipment grounding conductor. From there they go on to the Drill Hall in flexible nonmetallic conduit.

Several of the bolts securing the bus bars in the switchboard have rusted.

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The building underwent an electrical rewiring program in 1963. Several new panelboards and feeders were installed. Some new panelboards were added to existing feeders. Most of the original branch circuit wiring was replaced.

The main switchboard was also modified at this time. The result is a mix of the old and the not so old.

The original panelboards were fabricated using the original Westinghouse industrial style of circuit breaker. These are no longer readily available for replacement and must be specially ordered at a premium price if available at all.

Almost all of these original panelboards have long since lost their initial dead front construction. None of the doors in the panelboard trims that we encountered were locked. Most of the panelboard fronts are missing or misplaced leaving the energized bus bars and wiring terminations exposed to view and accidental contact. The same observations were made for some of the newer panelboards. We noticed one of the newer panelboards mounted horizontally to fit the available space. This is not the position for which they were intended or tested as a unit.

The original feeder and branch circuit wiring is copper conductor with RHW single or double braid covering. The newer wiring is copper conductor with THW insulation.

LIGHTING SYSTEMS

Lighting is generally incandescent. The original ornate chandeliers and wall brackets remain. The remainder of the incandescent fixtures were installed in 1963. The capacity of the branch circuits prevents the installation of anything larger than 40 or 50 watt incandescent lamps in most of the fixtures. While the resulting illumination levels were no doubt acceptable at the time, they are woefully inadequate for today's needs.

Fluorescent lighting fixtures were installed in some areas requiring higher levels of illumination such as classrooms and offices. Some were installed in 1963. Others were already existing when the 1963 project was undertaken.

Metal halide lighting fixtures with remote ballasts were installed in the Drill Hall in 1975.

The 120 volt convenience outlets that we observed were all 2 pole, 3 wire grounding type.



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EMERGENCY POWER SYSTEMS

A diesel engine generator set and automatic transfer switch were installed in 1963 but the generator has since been removed and the transfer switch serves no purpose.

Emergency lighting is now provided by individual battery powered unit equipment conspicuously located throughout the building.

FIRE ALARM & DETECTION SYSTEMS

A combination manual and automatic fire alarm system consisting of manual pull stations, automatic smoke detectors, horns and strobes was installed in 1989. The system is local only and the alarm is not transmitted off the premises.

There are a few local fire alarm systems on the upper floors of the building protecting areas that are not covered by the main building fire alarm system.

3. Plumbing Systems

DOMESTIC WATER SERVICE

Two (2) water services presently supply the structure. A 4" metered service enters the structure from 67th Street.

Services are interconnected at the basement ceiling, branch laterals are provided to supply basement plumbing fixtures.

Two (2) 7½ H.P. booster pumps located in the engineer's office, north elevation of basement, provide water supply to the building house tank.

The booster pumps are activated via a float switch located in the house tank. Booster pumps do not alternate automatically, facility personnel manually shut one pump off. Pump activation occurs every two days.

Piping material for domestic water distribution is copper, Type "L" with wrought tube fittings and soldered joints. All exposed piping is provided with fiberglass insulation.

DOMESTIC HOT WATER DISTRIBUTION

Domestic hot water is currently supplied by three (3) gas fired hot water heaters.

Each heater manufactured by A.O. Smith, Model No. BTC-305, 75 gallon storage, 305,000 BTU input, is connected by a manifold piping system.

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The heaters are located in the basement boiler room, and were installed this year.

The units provide hot water to all plumbing fixtures throughout the structure with the exception of the kitchen.

Hot water distribution piping incorporates a hot water return system.

An additional gas fired hot water heater located on the 4th floor in the kitchen area, and manufactured by A.O. Smith, Model No. BT-199, 84 gallon storage, 199,000 BTU input, supplies hot water to all kitchen equipment.

BUILDING HOUSE TANK

A 6500 gallon steel house tank is located in the tank room above the fifth floor mezzanine.

The lower portion of the tank (3,600 gallons) is utilized for fire protection.

A 6" fire main and a 3" domestic main exit the house tank.

A 2" cold water line from the booster pumps supplies water to the tank.

PLUMBING FIXTURES

Toilet facilities throughout the structure are comprised of floor or wall mounted water closets, wall hung urinals, and/or wall or counter top lavatories.

All plumbing fixtures are vitreous china. Plumbing fixtures are all out-dated.

Single lever chrome-plated flush valves are installed at all water closets and urinals.

Chrome-plated center-set faucets are provided at all lavatories.

Water supplies to lavatories are flexible chrome-plated tubing with associated angle valves and wheel handles.

Five (5) shower stalls are located in the basement level, each provided with single lever shower controller assemblies.

ADA plumbing fixtures are provided throughout the structure, with the exception of the basement shower stalls.



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NATURAL GAS PIPING

The gas service main enters the building from 67th Street.

Three (3) gas meters are presently located in the north side of the basement level. The gas service supplies two (2) boilers, three (3) domestic hot water heaters in the basement, one (1) domestic hot water heater on the Fourth Floor (Kitchen) and gas fired range, ovens and fryers in the kitchen area.

All gas piping is steel with screwed fittings.

STORM SEWERAGE

A majority of the roof drainage for the structure is accomplished by means of a system of exterior gutters and leaders.

Roof drainage for the drill hall incorporates a system of gutters and leaders discharging into a battery of five (5) roof drains located on the lower level roof area above the drill hall vaults. The roof drains are connected to interior storm leaders exiting through the lower level tunnel wall below the city sidewalk.

4. Fire Protection Systems

Two (2) fire hose racks including 1½" valves with 1" fire hose are located in each corridor on all floor levels.

A 2½" copper tube fire riser supplies each hose rack.

The lower level of the house tank is utilized for the fire standpipe system. A 6" fire main connection at the tank supplies the 2½" fire risers.

Two (2) fire department connections located at 66th and 67th Streets are interconnected to the fire main at the basement ceiling.

A 4" fire water service enters the building from 66th Street. This service is provided with a sprinkler alarm check valve. This system is utilized for a limited area sprinkler system in the basement level.



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APPENDIX 5C

Architectural Assessment

1. Interior Assessment

The Armory is made up of two wings, the Headhouse and the Drill Hall. The Headhouse faces Park Avenue and is a 5 story structure plus a cellar level. The footprint is approximately 200 feet by 100 feet, occupying the western edge of the site. A single passenger elevator serves all floors. A gymnasium was added on the fifth floor and is set back from the block below. The Drill Hall occupies the other three-quarters of the site toward the east.

HEADHOUSE:

Cellar Floor

The cellar floor space includes the boiler room and mechanical utilities as well as storage rooms, toilet and locker rooms for the Women's Shelter, a kitchen, and rooms reserved for the private use of the Knickerbocker Greys and other armory constituents. Extensive piping for mechanical systems is installed below the ceilings in the main corridor.

Windows on the west side are above grade at Park Avenue. An inoperative rifle range exists along the 66th Street perimeter, below the Drill Hall, and a pipe chase is at the northern perimeter. The area below the drill hall is otherwise unexcavated.

The primary public access is from the two wings of the main center stairwell; there is also an entrance from stairs leading down from 67th Street, used as the entrance to the Lenox Hill Women's Shelter. Another exit exists on the south side, although it is not currently used.

Each of the floors is discussed below:

First Floor

The first floor comprises the formal public spaces with decorative interiors.

Exiting is through the main entrance onto Park Avenue or through the Drill Hall.

A number of rooms on this floor have sustained water damage. These include the Commander's Reception Room (southeast corner), and the Divver Room on the west side. The Board of Officers/Clark Room has sustained extensive water damage on both the south and west walls. Heavy efflorescence, flaking paint, and spalling plaster are visible on the walls, as well as water staining and cracking on the ceiling. Scaffolding has been erected covering the entire ceiling in this room.



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Second Floor

The second floor is occupied by the Company Rooms. The entire floor has City Landmarks designation with the exception of the mailroom, toilet rooms, and one converted office space. The main corridor opens directly onto the central stairwell which connects down to the first floor and upward to the third floor. The northeast company room has access to the Drill Hall mezzanine below. Rooms on the east side have windows looking into the Drill Hall. The landing between the second and third floors provides access to a balcony overlooking the Drill Hall.

The ceiling on the north side of the main corridor is scaffolded after cracking and sagging was noted, particularly in the area of the large chandelier.

The Company A Room 211 has sustained water damage in the southeast corner. Miscellaneous rooms on the west side show water damage, although not extensively.

Exiting from this floor is via the main central stairwell. The north and south stairwells start at this floor, and while leading upward also provide access (through a window) to exterior fire escapes on either end.

Second Floor Mezzanine

The rooms on the second floor mezzanine level are accessed from stairwells integrated into the decorative finishes of the company rooms. The spaces, with low ceilings (relative to the rest of the floor), are used as offices or storage.

Third Floor

The third floor is primarily occupied by the Women's Shelter, although some rooms are used by military constituents. The main corridor functions as a lounge for the shelter. Rooms are used as sleeping areas, administrative offices, and a clinic. Rooms on the east side look into the Drill Hall.

The main central staircase terminates at this level. The ceiling finish is peeling badly in this hallway. A partition has been erected separating the stairwell from the main north-south corridor and adjacent spaces, with an exit door provided for access to the stairwell. Additional exiting is provided at the north and south ends of the Headhouse, and partitions have been erected at both ends to separate the stairs from the main corridor, although the end rooms are accessed from the stairwell side of the partition.

Some water damage was observed on the west side walls.

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Fourth Floor

The east side of the fourth floor is occupied by the restaurant's main dining room and kitchen, a smaller private dining room at the north end and a storage room at the south end. The north and south end of the west side include a private dining room and a storage room, while the middle spaces comprise two-level locker rooms. These are essentially unused, except in a minimal fashion as storage and coat check space for the restaurant.

Primary exiting from this floor is at the north and south ends of the main corridor. Additional egress from this floor is available through doors on the east wall, which access rooftop fire escape stairs above the Drill Hall roof, leading to both 66th and 67th Streets. Partitions have been placed at the north and south ends in order to segregate the main corridor, which serves as a prefunction lounge to the restaurant, from the exit stairwells. The end rooms, however, are on the stair side of the partitions.

Fifth Floor

The fifth floor was originally built as a gymnasium and is primarily a large clear-span space, with a balcony inserted on the north end. It is now entirely used by the Women's Shelter for sleeping, toilets, and offices. As this floor is a later addition to the building, the stairwells were planned as separated from the occupied space. Exiting is also provided on the east side, where doors from the gym access fire escape stairs which lead to 66th and 67th Streets. Additional fire escapes are also provided at the intermediate stair landings on both the north and south sides.

As this floor is set back from the massing of the Headhouse below on the Park Avenue side, access to the western roof area and tower roof is provided by doors at each end.

DRILL HALL

First Floor

The large vaulted space of the Drill Hall is over three stories in height against the adjacent Headhouse structure. The Drill Hall is accessed by vehicles and pedestrians from Lexington Avenue and also formally from the main entrance hall on the Park Avenue side. The east (Lexington Avenue) exits are at the north and south corners and in the center. The west exit is through the Headhouse or via the balcony fire escapes.

The enclosures below the balconies, added as storage rooms, support spaces and public toilets, are not part of the Landmarks designation.



THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

First Floor Mezzanine

These spaces are accessed from the main stairwell landing and are used for offices/locker rooms for the military.

The mezzanine level also includes the Drill Hall balcony level, which is also accessible from the main stair landing. The Drill Hall balconies on the north and south sides have been platformed over the stepped structure to provide storage and locker space for military use.

Exits from the balcony are through the stairwells at each corner, as well as via a single door on each street side, located in the middle of the wall, leading to fire escapes down to 66th or 67th Street.

2. Architectural Assessment of Exterior

Please note that this assessment is not meant as a definitive survey of damage sustained in all areas.

The exterior wall is brick masonry, with stone at window heads, sills, and decorative courses. It is a masonry bearing wall structure and typically appears to be approximately 24" thick. Many mortar joints appear to be eroded or poorly repointed, and brick has been damaged in prior repair work.

Roofs on the building are relatively new and appear to be in fair to good condition, although trees are growing at the parapets on the 67th Street side. The fourth floor roof on the Park Avenue side is a sloped mansard, with a standing seam metal roof, rising behind the crenellated parapet.

Exterior fire escapes are equipped with a counterweight which allows the ladder to descend to street level in the event of an emergency. Although archaic, these appear to be in operable condition, and are included in the records of the NYC Department of Buildings and the exterior landmark designation.

Water penetration in many areas of the building has resulted in extensive interior damage. There are a number of different conditions which have been identified, in a series of reports collected by the State Office of General Services, as contributing to the failure of the exterior envelope. These repeatedly include inadequate or non-functioning gutters, downspouts and roof drainage systems. This causes water to empty over the parapets and embrasures through scuppers, and run down across the face of the building. Eroded mortar joints at window heads are a likely source of penetration. The buildup and flow of water against deteriorated parapet masonry and flashings has similarly allowed water penetration to interior cavities and the finished spaces beyond. Other factors include leaking of internal leaders, which, according to the records, was addressed in an emergency project in 1998.



THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

There are a number of remedial projects underway or anticipated in the near future in order to address the facade deterioration.

The State Office of General Services has scaffolding in place on all the towers of the armory, including the side streets. They have undertaken an emergency project of brick reconstruction at the towers, particularly concentrating on the corbelling, on the Lexington Avenue side of the building. The recovery rate for re-use of brick has not been good and the brick is being replaced with new units, which, by virtue of being new, do not match the weathered old ones. The State expects that emergency facade work on the Park Avenue side will begin in the near future.

A severe crack and bulging masonry exists at the southeast corner of the Headhouse. The area of greatest damage is at the third floor level. Steel plates anchored into the masonry have been installed in an effort to strap the wall together. Damage from water is visible on the interior at all floors in this area. Scaffolding has been erected on the exterior but there are no plans for further work by the State at this time.

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

APPENDIX 5D

Architectural Plans

(See Attachment)



THE ELEVENTH REGIMENT ARMORY ON PARK AVENUE

APPENDIX 5E

Historic Preservation Assessment

Summary of Existing Conditions

The following section is a descriptive overview of the Armory's facades and interior spaces. It is neither an exhaustive catalog of significant features, nor a detailed survey of conditions which may require repair, restoration, or upgrading. Rather, it is an attempt to convey the building's general character in a brief and accessible format.

The following description makes only passing reference to the building's assemblage of furnishings and artifacts. Questions regarding the ownership of many of these materials remain unresolved.

Interior water damage has been identified in several rooms on the first, second and third floors, including the Clark Memorial Room. Unstable plaster has also been noted in a number of locations (Clark Room, Mary Diver Room, Colonel's Reception, Field & Staff Room, the second floor hall, and rooms 205 and 207). A full survey has yet to be completed, and these conditions may exist elsewhere as well. For further detailed information, please reference this the 1997 report on ceiling conditions to NYS DMNA. This report is included in an additional information package available upon request.

This section is divided into the following sub-sections:

- General chronology of original construction and major alterations
- Exterior description
- Interior description:
 - Headhouse, by floor (basement through fifth floor)
 - Drill Hall



THE SEVENTH REGIMENT ARMORY OF FAYETTE AVENUE

General chronology of original construction and major alterations:

- 1877-80 Original building construction.
- 1879-81 Build-out and furnishing of interiors.
- 1896-97 Entire building electrified; some of the elaborate original gas lighting fixtures were retained and wired for bulbs; others were replaced.
- 1902 New exposed-pipe heating system installed throughout building, replacing original system.
- 1909-11 Major renovation and expansion of Headhouse. This work included:
- Third story raised to full height
 - Fourth story added
 - Upper section of central tower removed, and new crenellation added
 - Mezzanine levels inserted on eastern side of first and second floors, with additional partitioning in the newly-created spaces
 - New stairways inserted at both ends of main corridor, connecting floors 2 through 4
 - Extensive work on heating system
- 1912-13 Major alterations to Drill Room, including construction of a new, enlarged spectators' gallery, along with changes to window openings, and a new paint scheme.
- 1928-29 Fifth-floor gymnasium added, and north and south stairways extended for access; fourth-floor spaces converted into new dining and social spaces (including the Daniel Appleton Memorial Mess Hall, decorated in 1930-31).
- 1930-40s Renovation of third floor, numerous other alterations and "restoration" projects.
- 1950s -90s On-going series of ad-hoc minor alterations. These changes are poorly documented, and have generally not been historically significant. Therefore, they have not been specifically addressed in this document
- 1997-98 Temporary measures (still in place) in response to discovery of unstable ceiling plaster on first and second floors.

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

Exterior Description

The Armory building occupies the entire city block bounded by Park Avenue, Lexington Avenue, 66th and 67th Streets. It consists of two separate elements unified by closely-related facades of brick masonry: The five-story Headhouse fronts on Park Avenue, while the attached Drill Hall faces Lexington, occupying three quarters of the site. The two avenue facades are framed by pairs of corner towers, and a third pair of towers marks the eastern wall of the Headhouse where it abuts the Drill Hall. Another single tower marks the building's principle entrance at the center of the Park Avenue facade. (The upper section of this tower was removed in 1909-11.)

• Brick Masonry

- The original masonry exterior walls are of pressed red brick, with narrow joints and tinted mortar. Vertical surfaces are laid up in running bond, and are embellished with brick corbelling and crenellated battlements.
- Similar materials were used for subsequent alterations to upper floors of the Headhouse and to the original Drill Hall window openings.
- The exterior walls of the fifth-floor gymnasium, added to the Headhouse in 1929, are faced with common brick. The gym's north and south endwalls are treated as stepped gables.

• Stone Masonry

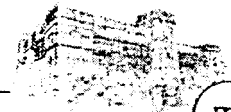
- The exterior brickwork of the entire structure is trimmed in grey granite.
- The granite elements include: battered and rusticated base; retaining walls; string courses; sills, enframements, lintels, vousoirs, and brackets at window and door openings; double stoop at the main entry; arched corbelling; loophole blocks; and parapets and copings

• Windows

- On the Headhouse, windows are double-hung wood sash, some with transoms. Wrought-iron grilles screen window openings on the lower floors.
- The Drill Hall is illuminated by two rows of clerestories in the roof, and a large, segmentally-arched window above the Lexington Avenue vehicular entrance.

• Doors

- The Park Avenue entrance pavilion incorporates massive paired entry doors fronted by elaborate wrought iron gates.
- The Lexington Avenue vehicular entrance is equipped with a roll-down steel gate (installed in 1955).



THE SEVENTH REGIMENT HEADHOUSE ON PARK AVENUE

- Roofs/Parapets
 - Pitched roofs enclose both the Drill Hall and the Headhouse's fifth-floor gymnasium
 - Areas of flat roof cap all seven towers, as well as the remainder of the Headhouse around the gym
 - A mansard encloses the western (Park Avenue) side of the fourth floor
 - Most visible roofing material appears to be recent, with sheet metal, membrane roofing, and built-up roofing used in various areas
 - Drill Hall clerestories and related vertical surfaces clad in sheet copper
 - Copper flashing, gutters and leaders
- Metalwork
 - Iron railings at main entrance, around arcways, and along perimeter plantings
 - Wrought-iron and steel fire escapes on the north and south facades
 - Wrought-iron gate and lighting fixtures at main entry

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

Interior Description

HEADHOUSE

From the basement to the fourth floor, the interior spaces of the Headhouse are arranged along a double-loaded north-south corridor. The main stairwell is located at the center of the building along the east side, and reaches from the basement to the third floor. Auxiliary stairways, completed in 1911, are located at the north and south ends of the main corridor, and connect floors two through five. An elevator off the north corridor serves all six floors.

The first floor houses the building's principal presentational spaces, used by the regiment for ceremonial and public functions; it also communicates directly with the Drill Hall to the east. The second floor is primarily devoted to the club rooms originally used by the regiment's individual companies. The upper floors house additional office and administrative space, as well as dining and social facilities on the fourth floor and the fifth-floor gymnasium. The basement contains service and utility spaces.

Cellar

The basement level of the Armory Headhouse contains equipment for the building's mechanical systems, as well as locker rooms, kitchen space, and storage areas, and other service functions. Shooting ranges and service spaces occupy areas beneath the north and south edges of the drill hall.

The following descriptions outline the general nature of interior treatments and fixtures.

- Floors
 - Generally concrete
- Walls
 - Generally utilitarian brick
- Ceilings
 - Generally pressed metal
 - Exposed utility lines and conduits
- Doors
 - Single- and double-leaf doors, some in paneled wood and some in metal, with matching enframements
 - Many with bronze decorative hardware; some with glazed panels.
 - Many doorways pierce brick masonry bearing walls with segmentally arched openings
 - Additional metal-clad doors of later date

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

- Windows
 - Wood-framed double-hung sash, some with iron exterior shutters
- Other woodwork
 - Paneling and wainscoting (largely beaded-board)
 - Built-in storage fixtures, including cabinets (some with glazed doors), lockers, display cabinets
- Lighting fixtures
 - Recent brass ceiling fixtures
- Plumbing and heating fixtures
 - Bathroom fixtures are typically non-original and non-historic
 - Cast-iron steam radiators
- Other fixtures, furnishings, and artifacts
 - Stairs and railings, in metal and in wood
 - Telephone booths
 - Balance scale; assorted military equipment and memorabilia; other miscellaneous objects

First Floor

The first floor of the Armory Headhouse contains the facility's principal public spaces, including some of its most singular and elaborate rooms. The grandly-scaled circulation areas include the Entrance Hall, Main Corridor, and Stair Hall. (The Stair Hall contains the monumental staircase itself, and also serves as the vestibule to the Drill Hall located immediately to the east of the Headhouse). On the west side of the main corridor, the four largest "regimental rooms" face Park Avenue: the Veterans' Room, the Library (converted into the Regimental Museum in 1911), the Reception Room, and the Board of Officers' Room (renamed the Colonel Emmons Clark Memorial Room after its 1932 restoration). The east side of the corridor includes three rooms that were part of the building's original interior layout (the Field & Staff Room, the Equipment Room, and the Colonel's Room) as well as two suites which were carved out of the original North and South Squad Drill Rooms in 1909-11: the Inner & Outer Committee Rooms (north), and the Adjutant's Room and suite (south). [Note: room numbers to be included for cross-reference to floor plans when available.]

The following descriptions outline the general nature of interior treatments and fixtures.

- Floors
 - Hardwood flooring throughout, usually oak, frequently with mahogany and other contrasting species



THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

- Fields are plain or patterned (herringbone, parquetry, etc.); many rooms also include patterned borders
 - Some areas are carpeted
- Walls
 - Flat plaster above paneled wood wainscot (see "Woodwork" below)
 - Plaster finished with a wide range of decorative treatments (of those that remain visible, not all are original); techniques include stenciling, applied metal leaf, painted fabric wall coverings, and trompe l'oeil designs
- Ceilings
 - Most ceilings are flat plaster (some with coves, others with molded cornices and friezes). Others are beamed, coffered, or in the case of the Library/Regimental Museum, vaulted ceramic tile. All are treated with a range of plain and decorative finishes; a number no longer preserve their original designs.
 - Pressed metal ceilings in the main entry and the first-floor corridor date to 1913.
- Woodwork

The entire first floor is characterized by generous amounts of rich woodwork, including mouldings, wainscoting, the treatments of door and window openings, and a host of other fixed and moveable elements. Species used included oak, maple, walnut, ash, mahogany, and rosewood.
- Doors
 - Massive, paneled wooden doors in a range of configurations (single leaf, double leaf, and rolling pocket doors) set in paneled surrounds with matching enframements and overdoors
 - Many surmounted with transoms (and in one case, oculi), including some with stained glass
 - Bronze decorative hardware
- Windows
 - Double-hung wood sash, set in paneled surrounds with matching enframements
 - Some with stained-glass window screens, in figurative and abstract designs
- Other Woodwork
 - Extensive paneled wainscoting in almost every room, often with hand-carved decorative elements

THE SEVENTH REGIMENT ARMORY ON PARK AVENUE

- Monumental fireplaces with mantels and overmantels (also frequently incorporating stone, tile, glass, and metalwork elements)
 - Diverse types of built-in storage and display fixtures, including cabinets, wardrobes, lockers, bookcases, and show cases
 - Decorative hardware and integral lighting fixtures of bronze, wrought iron, and glass
 - The woodwork of many rooms also incorporates numerous diverse decorative accents, including carvings, metal-work screens and panels, wooden screens, ceramic tile, as well as many types of glass (stained, leaded, etched, beveled, mirror)
- Lighting fixtures
 - The current lighting system incorporates an array of ornate fixtures dating both from the original gas lighting installation and from the subsequent all-electric system installed in 1911-12, as well as more recent equipment.
 - These represent a full range of fixture types, including chandeliers, wall fixtures, torcheres, and smaller fixed and free-standing lamps; they are executed in a variety of materials including wrought iron, brass, bronze, and, in at least one case, polished steel.
- Plumbing and heating fixtures
 - Bathroom fixtures are typically non-original and non-historic
 - Cast-iron steam radiators, some in radiator enclosures of wood and/or metal, some with marble tops
- Other fixtures and furnishings
 - Stairs, balconies, mezzanines, balustrades and railings, in metal and in wood
 - Metalwork gates and screens
- Furniture
 - Display cabinets and other storage equipment
 - Built-in seating (window seats, benches, fireplace inglenooks)
 - Tables, desks, stands
 - Moveable seating
- Art/Artifacts
 - Commemorative plaques, tablets, and displays
 - Weapons, uniforms, flags, and other military equipment and memorabilia
 - Military and hunting trophies